

THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

Weather radar to be installed in Stanley

by Bruce Boe

The Atmospheric Resource Board has announced the installation of a digital weather radar at the Stanley Municipal Airport. The radar will be a WSR-74C system, the same as the radar presently employed by the National Weather Service in Williston. However, unlike the Williston system, the Stanley radar will be equipped with a state-of-the-art computerized TITAN data acquisition system. The TITAN system (for Thunderstorm Identification, Tracking, Analysis, and Nowcasting) allows full recording of everything the radar sees, and has extensive analysis tools which provide the operating meteorologist

with additional real-time information such as estimated total precipitation, forecast storm track and intensity, and other storm parameters.

The radar itself is presently being reconditioned, and will be ready for installation at the Stanley Airport by April 1998. A modest two-story structure is planned, which will house an operations center, the radar set itself, spare parts, and calibration and maintenance equipment.

The primary function of the radar and operations center will be the focal point of continuing cloud seeding operations conducted each summer by McKenzie, Mountrail, and Ward counties during the

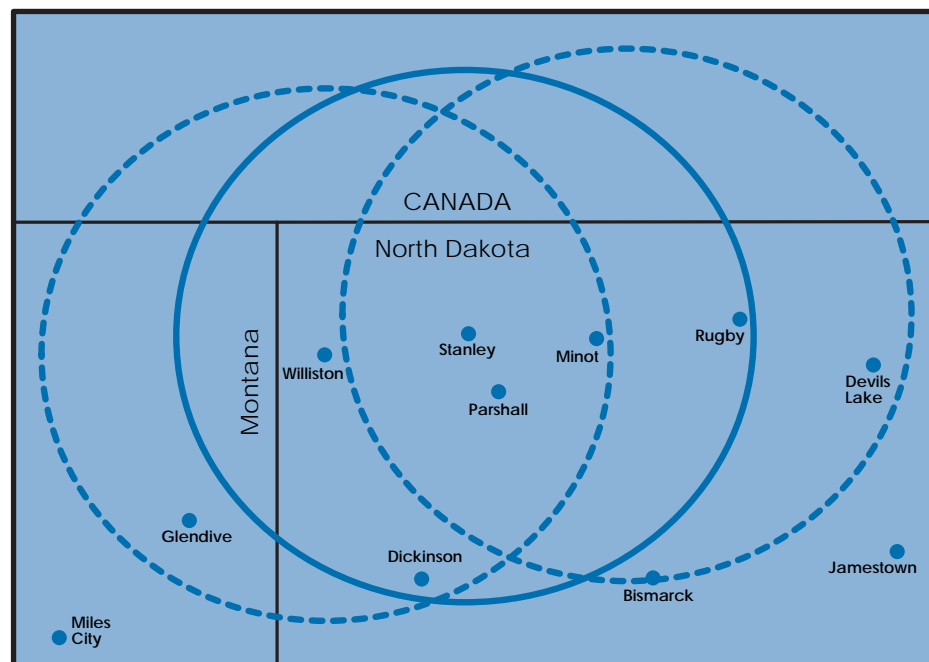
months of June, July, and August. First-year project costs will be about the same as leasing a radar (as has been done in previous years), but subsequent seasons should each realize a savings to the project on the order of \$10,000.

The radar will also provide improved local storm monitoring capability, as well as better pre-flight weather information for departing pilots. Present plans also include displaying regular posting of real-time radar data on the Internet at the Atmospheric Resource Board home page (shown below). If there is sufficient local interest, the radar operations could be extended or continued year-round.

Project personnel have always interacted considerably with National Weather Services offices, and this is expected to continue. However, it should be stated that the Stanley radar is not intended to be a replacement for the Williston radar, though the supplementary data provided will no doubt prove helpful in assessing severe weather situations.

If you find yourself in the Stanley area this summer when thunderstorms are developing, stop by the airport, check out the radar, and say hello!

For additional information, contact the Atmospheric Resource Board. ■



The 100 nautical mile (110 statute mile) coverage ranges of the Stanley radar (solid circle), and Minot and Williston radars (dashed circles) are shown. The Minot radar is a Department of Defense Doppler radar, that ports its data to the National Weather Service (NWS) in Bismarck. The Williston radar is a non-Doppler system used by NWS forecasters in Williston, while the new Stanley WSR-74C is a computer-driven system to be used by the cloud modification project.

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